

## Collaborative Approach to Water Supply (CAWS)

April 18-19, 2011

### Meeting Summary

#### Attendees:

**EPA-** Suzanne Bohan, Bert Garcia, Karen Hamilton, Jim Luey, Julia McCarthy, Larry Svoboda, Melanie Wasco

**Corps-** Tim Carey, Scott Franklin, Chandler Peter

**Institute for Water Resources (Corps)-** Bob Brumbaugh, Maria Placht

**State-** Alex Davis, Jennifer Gimbel, Eric Hecox, Rebecca Mitchell

**Keystone Center-** Jody Erikson, Matt Mulica

#### Meeting Agreements:

- Communicate early on in the NEPA process
- Create a general schedule of decision points for NISP, Moffat, Windy Gap and Halligan-Seaman and try to get concurrence, within agency authorities and policies , prior to decisions being made
- Develop a tool to document project issues and resolutions (e.g. matrix or other document)
- Try to build agreement on whether the state's demand projections for the Metro and South Platte Basins are acceptable for use in EIS documents (meeting in June, document any agreement by September)
- Try to build agreement on how conservation is addressed- demand reducer, stand-alone alternative or component of alternatives (meeting in June, document any agreement by September)
- State become a cooperating agency on NISP

#### Schedule:

- May 2011 Meeting, CO & EPA - SWSI presentation for EPA
- June 2011 Meeting, Corps, EPA, & CO - State's numbers and conservation clarifications
  - Try to build agreement on whether the State's demand projections for the Metro and South Platte Basins are acceptable for use in EIS documents and
  - Build agreement on conservation issues:
    - How much conservation is enough?
    - Is it OK to use conservation as a demand reducer?
    - What does "clearly document" mean and how best to summarize
  - Build agreement on a general schedule of decision points for NISP, Moffat, Windy Gap and Halligan-Seaman
  - Address the following questions received in the meeting:
    - Extent of barriers caused by prior appropriations institutional corollary, i.e. water allocation could be completely rethought without prior appropriation constraints, how much better could we (CO) do in providing for all needs (could this change before 2050)?
    - Would this formal agreement definitively include all 3 districts of the Corps that manage projects within CO? Is that the intent?
      - ◆ Tim's answer: No, the focus of CAWS is the Colorado Front Range and any formal agreements would be applied only within the Omaha District area of the Front Range (Metro and South Platte Basins). Extension of

agreements beyond this area would need to involve the Albuquerque and Sacramento Districts.

- How can this be memorialized and how long will agreement last? How can EPA maintain objectivity around the perception of “agreement” for other reasons?
- More info on limitations to details-agricultural conservation
- How will we bridge the difference between project specific demand and regional demand?
- By September 1, 2011 – Finalize any possible agreements on using the State’s demand projections and how conservation is addressed
- September 2011 – Decide if the effort has been successful and whether to continue on other topics

#### **Meeting Actions:**

- Tim Carey – develop a draft schedule of decision points for NISP, Moffat, Windy Gap and Halligan-Seaman
- EPA/Corps/CO – Review 2010 SWSI Section 4.2 and 5.2 to prepare for June’s discussion of whether they can accept the State’s demand projections for the Metro and South Platte Basins for use in EIS documents
- Karen Hamilton - set up logistics for the May SWSI presentation with Eric
- Maria Placht- send a doodle poll to schedule the June meeting
- Karen Hamilton - set up logistics for the June meeting and an email request for additional questions on SWSI data (additional to sticky-note questions already given)
- Eric Hecox and EPA representatives - discuss their NISP comments and explain where there seem to be incongruities
- Julia McCarthy will lead internal EPA actions to:
  - Suggest how entities can be held accountable for implementing conservation: What can be written into a ROD that will hold them accountable for pledged conservation savings? – Email a draft to Corps and State
  - Define what’s enough conservation
  - Define what “clearly documenting” conservation means
  - Answer - Is the EPA OK with the Corps taking conservation off the top of need (demand management) rather than as a stand-alone alternative? (Yes/No/But)

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#### **Meeting Notes:**

- Overall Objective: To streamline the time it takes from the start of a permitting request to a decision.

#### **Meeting Objectives:**

- To build mutual understanding of the considerations that contribute to water demand, the roles of each entity in the process, and steps in the process
- To improve working relationships through mutual understanding and discussion
- To build agreement where possible on water supply deficit, how water conservation is addressed, the process for these, and each entities’ role

## **I. Front Range Water Deficit and Statewide Water Supply Initiative (SWSI)**

Eric Hecox, State of Colorado, presented the State's process for determining M&I supply gap - criteria and decision points, results and any challenges with the process or results:

- Frequency – the State will be doing SWSI every 6 years
- M+I Demand projections and calculations
  - Calculated gallons per capita per day (GPCD) for each basin, county, and statewide – interestingly areas with tourist industry or other commercial industries (i.e. dairies) use more water
  - Gathered data from top 3 providers in each basin, any provider providing over 5,000 a.f., and smaller providers who were willing to share information
  - Clarified that the real driver of population growth is jobs; if job growth is strong, population growth will be higher
  - Showed that demand has decreased 18% since 2002, but the cause and permanency is uncertain
  - Estimated low, medium and high passive conservation - the highest estimate removed 150 thousand acre feet (kaf) of passive conservation off the demand projection
  - Also embedded in the demand projections are conservation and use reductions achieved to date (i.e. the 18% reduction since 2002)
  - Considered active conservation beyond passive conservation and conservation achieved to date is considered as a strategy for meeting future water needs.
  - State law requires that local M+I providers who provide more than 2,000 a.f. annually have a conservation plan approved by the state. Many local communities feel that if they have a state approved conservation plan, Federal entities should not be telling them more conservation is required.
- M+I Supply projection
  - Result: 600k-1 million af needed by 2050
  - Assumed different success rates for the IPP's
  - Calculated the gap using the formula: Baseline demand projection – passive conservation – current water use – successful IPP= gap. The 2050 M&I gap ranges from 190,000 a.f. to 630,000 a.f. depending on population growth and the success rate of IPPs
  - Estimated that some local municipalities could have shortage much sooner

### **Roles and Perspectives:**

The group discussed each entities role and perspectives broadly and in relation to the State's future demand study.

- The Corp
  - Approves or denies permits through the 404 process, with NEPA part of the process
  - Evaluates the proposed supply gap per project
  - Doesn't have a role in determining regions gap- they look at individual entity's gap
  - Utilizes statewide SWSI data when that data overlaps with NEPA requirements
- The EPA
  - Protects aquatic resources and is required (by regulation) to ensure selection of the least environmentally damaging practicable alternative (LEDPA)

- Reviews descriptions of conservation programs and plans presented in NEPA and 404 documents.
- The State
  - Authors the Statewide Water Supply Initiative (SWSI)
  - Looks at the water systems more on a general statewide and basinwide perspective rather than from an entity and project specific level

### Discussion:

- For new development, could we pass legislation to require conservation?
  - There will be significant resistance because people don't like statewide restricting policies
  - CWCB is working on conservation implementation planning and has put together a Best Management Practices (BMP) manual
- How can agreeing on a statewide gap help make the NEPA process more efficient? (Corps and EPA have very little role in statewide gap analysis)
  - If a project utilizes SWSI numbers, then the need number may be more smoothly agreed upon with less expensive analysis
  - The more that can be agreed upon up-front the better
  - As the federal agencies gain a better understanding of SWSI, then they will have a better understanding of how all the projects fit together
  - If it was known how the State looked at local numbers to get statewide numbers then there wouldn't be a need to go through the intense scrutiny at the NEPA level for the same numbers- this could really help efficiency, allow for better predictability and lower the probability of disputes
  - Concern: It's difficult to fit federal laws and requirements into a local control state system
- What's the State's public process?
  - Several layers of public analysis
    - Entities' own public process to arrive at the numbers they provide the state
    - State reaches out to existing stakeholder groups and roundtables
    - Publicizes the draft document which is available for comments for over 9 months- held multiple meetings with and received many comments from:
      - Basin Roundtables, environmental organizations, Front Range Water Council, Colorado River District, CWCB Board, public could give written comments or verbal comments at CWCB Board meetings
      - Announced at Roundtables, Web blasts, several newspaper articles
  - That process is more robust than for an EIS
  - Most of the commenters agreed with states demand projections, but there are always outliers
- How durable should the agreement about the future demand numbers be?
  - Transparency is needed
  - Agreement has to be with the current SWSI numbers; there is no room for change since the process is finished, but the next revision will be in six years
  - No one has the authority to make agreements that sign away the option to elevate an issue

**Agreement:** Meet to try to build agreement on whether the State's demand projections for the Metro and South Platte Basins are acceptable for use in EIS documents. In order to:

- Decrease duplication in NEPA analysis
- Understand how IPP's fit together

**Actions:**

- Meeting- by June 2011- substance, details, build agreement
  - EPA/Corps/CO – Review 2010 SWSI Section 4.2 and 5.2 to prepare for June's discussion of whether they can accept the State's demand projections for the Metro and South Platte Basins for use in EIS documents
  - Karen Hamilton - set up logistics for the May SWSI presentation with Eric
  - Maria Placht- send a doodle poll to schedule the June meeting
  - Karen Hamilton - set up logistics for the June meeting and an email request for additional questions on SWSI data (additional to sticky-note questions already given)
- Finalize any agreement by September 1, 2011
- Agreement could be memorialized via separate letters; posting on relevant Corps website

**II. When and how is conservation addressed?**

Chandler Peter, US Army Corps of Engineers presented that the Corps address conservation as a demand reducer and in some cases as an alternative. He also discussed:

- It's up to the entity to determine their reliability criteria/firm yield and demand projections
  - Corps will either agree or disagree
- Validation of population projections is done through state demographer
- The Corps looks to make sure their projections are reasonable- no speculation is allowed
- Look at GPCD to determine if their use rates reflect good conservation practices, although GPCD doesn't look at the sectors that are included, sometimes apples and oranges

**Roles and Perspectives:**

- The Corps
  - Using conservation as a need reducer or as an alternative is the entity's choice and they almost always choose to take it off the top - telling a community not to have Kentucky bluegrass is not the Corps role
- The EPA
  - Looking for documentation in NEPA/404 documents that demonstrate appropriate conservation/a solid conservation effort or programs
  - Including the following components in the conservation plan is optimal, but there are no national benchmarks
    - Rates structures
    - Education
    - Rebate plans
    - Leak detection process
    - Turf by-back

- Etc. (see SWSI and State Conservation BMP document)
- The State
  - Required to collect specific conservation data from water providers by 2012
  - Review and approve conservation plans from “covered entities.” These are renewed every 7 years

#### Discussion:

- How far should/will one go *versus* how far can one go? How can we accept a reasonable range when certain entities are doing more?
  - Northern Water is a conservancy district and doesn’t have the authority to impose conservation on their customers and distributors while Denver Water can impose conservation percentages on themselves
  - Agree that entity’s need to get use rates down to acceptable levels. How do you know that an entity can do more?
  - Locally provided water conservation plans should be carefully reviewed for adequacy
  - The community needs to document that they’ve gone thru a thorough water conservation planning and implementation process
  - Action: The State will consider inviting EPA to participate on the Water Conservation Technical Advisory Group (WCTAG) team
- What is the proper level of conservation documentation?
  - There was a difference of opinion on how clearly conservation was documented in the various EIS documents
  - Entities are not clearly documenting why they can’t do as much conservation as high conservation performers (e.g. Denver Water)
  - Need to address:
    - What does “clearly document” mean?
    - Where should conservation be addressed, where does it belong in the document?
    - What’s the best level of summation of the conservation elements?
    - Is it digestible (i.e. 1000’s of pages of info to wade through)- what’s the format the EPA wants it in?
  - Conservation should be documented and disclosed within the requirements outlined in the regulations- clearly addressing the criteria spelled out in 404 and NEPA
  - There is value in meeting to discuss the difference in opinion about whether conservation is clearly documented
    - Use past comments and compare with other’s thoughts
    - Add this topic to the SWSI demand numbers meeting in June
- What is enough conservation?
  - Defined by whom? The community has that discussion at the local level
  - There is no collective idea of what specific amount of conservation is enough.
  - The Corps has offered what they consider a reasonable range: 185-210 GPCD system-wide (EPA reps think this range seems too high)
  - GPCD doesn’t look at the sectors that are included, sometimes apples and oranges depending on the region and economy

- What is important is the LEDPA
  - EPA has no national criteria/guidance to help build collective agreement on what's enough
    - EPA Region 4 put out guidance to consider x numbers of factors in your demand projections and what are the cost and benefits; it put conservation as both alternative and need reducer
    - Questionable if Region 4's guidance applies here; EPA will consider
  - Agencies don't have the resources to do cost benefit analysis, but do have the resources to review one
  - Whatever is proposed, plus conservation is better than original proposal
  - ACTION: Define what's enough conservation and what "clearly documenting" conservation means
- Is the EPA ok with taking conservation off the top?
    - Yes, if you've mitigated the impacts due to the smaller size of the project
    - For example: NISP's Supplemental EIS will flesh out where conservation will be addressed. The Corps would like to take conservation off the top and better document it.
    - If conservation is the alternative, it may alone or in combination with other provisions, constitute the LEDPA
    - If conservation alone would meet demand, entity would not spend millions for EIS to build a multi-million \$ project
  - What's the enforceability/accountability that conservation savings will be implemented/realized?
    - There is no enforcement of the conservation measures, but if those measures were not completed their next permit application process will be more difficult due to the significant accountability questions
    - Can address this in ROD
    - Can't put conditions in permit that can't be enforced
  - There is a need to improve communication and the level of trust between us.
    - Trust is being built by the back and forth today and better understanding of our roles, perspectives and obstacles
    - Trust can be built by EPA participating in some of the targeted roundtables and WCTAG
    - Trust is needed to get to a point where the difficult questions can be asked and discussed

### **Agreements:**

- Try to build agreement on how conservation is addressed- demand reducer, stand-alone alternative or component of alternatives

### **Actions:**

- EPA will define what the Agency means when asking to "clearly define" conservation within EIS documents
- EPA will develop a list of criteria for how much conservation is enough
- EPA will suggest what can be written into a ROD that will hold a permittee accountable for pledged conservation savings. – Email a draft to Corps and State
- Meeting in June, document any agreement by September 2011

### **III. Definition of “purpose and need” on individual projects**

#### **Roles and Perspectives:**

- The Corps
  - Defines an entity’s purpose and need as a need amount for a specific objective (i.e. 18kaf for Moffat)
  - Measurable components of need integrated with purpose to allow for equivalent comparison of alternatives
  - All reasonable and practicable alternatives must meet project purpose which includes target shortfall
- The EPA provides comments during the purpose scoping phase and evaluates project purpose and need to ensure a broad range of practicable and reasonable alternatives is included in the NEPA and 404 documentation
- The State looks at finding a balance between new supply, conservation and ag dry up

#### **Discussions:**

- How can LEDPA requirements be involved from the beginning?
  - EPA is not involved early in the Colorado water supply planning process (e.g. at the Basin Roundtable discussions), and yet is responsible (later in the process) for ensuring that NEPA and 404 documents include a broad range of alternatives and selection of the LEDPA. This can lead to redoing work or doing additional work and makes it difficult to determine if the LEDPA was screened out too early
  - It would be helpful and improve efficiency and coordination, if EPA could help focus the direction of the work early in the process to ensure accommodating both NEPA and 404 requirements along the way.
  - EPA and the Corps disagree about purpose and need and never resolve it, and continue to disagree throughout the process because their needs weren’t addressed or met at the beginning
  - Interests must be addressed early in order to make the rest of the process smoother
  - Can we elevate this decision to headquarters in the beginning to make sure it’s resolved?
  - If we agree to the purpose and need at the beginning, can we have this be a binding agreement? (There are statutory and regulatory obstacles to a binding agreement.)
  - EPA is welcome to participate in roundtables to better understand the state’s needs for water and the trade-offs being explored
- How many alternatives are enough to make sure the LEDPA is included? How broad do you make the purpose and need to not unfairly constrain the process?
  - The current process defines purpose and need, lists alternatives, defines screening criteria and screens alternatives.
  - Concern- if the purpose and need and criteria are misidentified or not inclusive, then when they are used to screen out alternatives, good-LEDPA alternatives may be screened out
  - Concern– agencies talk about their disagreements over screening criteria and process, but have not resolved differences on e.g. “practicability screening criteria”



- Concern- Entities look at the costs of alternatives and they pick the lowest cost alternative, even if it is not the LEDPA
  - Concern- the range of alternatives starts to include an entity's preference that may not be fully inclusive of environmental factors and may not include the LEDPA
  - Decreasing the number of alternatives is a tailored process for each project. For example, for Moffat there were 300 alternatives that were narrowed down to:
    - 50 by practicability;
    - 25 by cost; and
    - 5 based on impacts.
  - Alternatives are dropped if they are negative on one screening criteria
  - Concern- how the screening criteria are used; decisions are made and others only comment on it without inclusion in the rationale
  - Suggestion- Everyone needs to get involved earlier to better understand the evolution of decision making.
- How can we communicate better to streamline this process?
    - Better documentation of early communications
    - Develop documentation of agreements that are binding or concurrence to keep agencies from rehashing issues
    - Elevate through management chain if agreement cannot be reached in a certain time period. The formal elevation process involves elevation to HQ; earlier, lower level elevation procedures would help streamline the process.
    - Include all interests in the process
    - Elevate on front end is a good idea, but we need to reserve the 404q process.
  - What do you do about continuity of staff and the challenges this creates for backtracking?
    - Create a structure that keeps more than one person informed
    - Be more disciplined about how we document what's been discussed
  - Possible solutions
    - Early communication in decision-making stages
    - Matrix or documentation of issues-how to address issues resolution, specified timeframe, documentation tool (matrix)
    - Identify and document agreement moments on p+n, alternatives and screening criteria
    - Early elevation process when disagreement on p+n, alternatives and screening criteria
    - Structure that keeps more than one person informed- be more disciplined about how discussions are documented

### **Agreements:**

- Communicate early on in the NEPA process
- Create a general schedule of decision points for NISP, Moffat, Windy Gap and Halligan-Seaman and try to get concurrence, within agency authorities and policies , prior to decisions being made
- Develop a tool to document project issues and resolutions (e.g. matrix or other document)

## **Actions**

- Tim Carey – develop a draft schedule of decision points for NISP, Moffat, Windy Gap and Halligan-Seaman

## **IV. Portfolio of methods to address the supply gap - what is the best balance of storage, conservation, and other methods to address the gap**

Eric Hecox presented how the State has been thinking about this issue and gave a demonstration of portfolio tool.

### **Discussions:**

- How is the state stopping the trend toward permanent agricultural (ag) transfers (the IBCC says permanent ag dry-up is unacceptable and there is a need for a mixed strategy)
  - Many groups are looking at how to not have permanent ag dry-up
  - Problem is that Colorado water law prohibits stopping private rights from being sold
- Does this create an adversarial relationship between agriculture, Colorado River community and environmental interests?
- State's interest is to ensure agriculture throughout Colorado, particularly on the South Platte, doesn't unreasonably dry up. The two ways to do this are to keep working on alternative agricultural transfer methods and to the extent IPP's are successfully implement, ag dry up is reduced.
- It is all linked- the environment is tied to the economy which is tied to ag
  - The environment is very important to the state
  - May not be articulated enough
- Most substantive progress in SWSI is on the non-consumptive side
- EPA hasn't heard the state openly express such strong environmental interests.

## **V. Clarify Aquatic Resource of National Importance (A.R.N.I.)**

### **Discussions:**

ARNI is part of the Clean Water Act process for elevating an issue to a dispute resolution process at the EPA headquarters and Assistant Secretary of the Army. It is not a certification or decision. The challenges are that there are no clear criteria for what ARNI means or when the process is triggered; and that it is confusing because the words imply a designation not a process.

There is more information on the EPA website. The EPA will probably not be sending out any further clarification on the issue.

- This drives water entities crazy
- Could Region 8:
  - Find a different word- calling it an ARNI is confusing
  - Create regional criteria
- EPA would be willing to present to any groups
- Corp has the authority to deny the elevation request (including the ARNI description)

**VI. CAWS Outstanding Issues:** (See Tim's handout)

- Programmatic EIS
- Conservation standards
- Overall need for water supply and storage
- Documentation of planning assumptions
- Effects of water quality (aquatic system)
- Cumulative impacts
- Mitigation
- System risks/drought program
- Standards for hydrologic analysis
- State administration of permit conditions imposed by Corps/EPA
- Buy and dry/interruptible supply contracts

**Additional Issues identified:**

- ID hurdles to regional projects
- Practicability screen
- How to resolve purpose and need on new projects
- Identify hurdles to multi-use project
- Ag conservation
- How do we build trust
- Influence the future that we would like to see

**VII. Next steps:** See beginning of summary for agreements, schedule and action steps